



February 4, 2019

Commissioner June Tierney  
Department of Public Service  
112 State St., 3<sup>rd</sup> Floor  
Montpelier, VT 05620

Dear Commissioner Tierney:

Vermont Telephone Company, Inc. (VTel) respectfully submits these comments in response to the January 16, 2019 letter from the Town of Shrewsbury Selectboard. VTel understands fully the potential communications impacts of an extended power outage affecting customers served by VTel's fiber network, and takes seriously concerns about a loss of voice service in such circumstances. That is why VTel makes available several backup power options for its customers and exceeds the backup power requirements imposed by the Federal Communications Commission (FCC) more than three years ago.

Concerns about the loss of fiber-based voice service during a power outage are not new, and backup power is an issue that every fiber network operator confronts. Indeed, in 2014, the FCC initiated a rulemaking proceeding to consider the public safety implications as networks transitioned to fiber in place of copper-based, line-powered technology. *Ensuring Customer Premises Equipment Backup Power for Continuity of Communications; et al.*, PS Docket No. 14-174, et al., Notice of Proposed Rulemaking and Declaratory Ruling, 29 FCC Rcd 14968 (2014).

With ever-increasing demands for greater broadband speeds and capacity, the FCC and nearly every state in the U.S. has encouraged network operators to transition from traditional copper line networks to fiber-optic networks. Fiber-optic connectivity provides significant benefits over copper in terms of reliability, bandwidth and capability of supporting the robust broadband speeds that customers demand. But an inevitable consequence of transitioning from copper to fiber networks is that customers may no longer hear a dial tone when the power is out because, in contrast to copper, fiber voice service is powered locally at the customer's premises rather than from the operator's central office.

Nevertheless, because communications services play an essential role in the delivery of public safety services, particularly 911 – a role that is especially prominent during emergencies that lead to power outages – the FCC adopted rules in 2015 placing “limited backup power obligations on providers of facilities-based fixed, residential voice services that are not line-powered.” *Ensuring Continuity of 911 Communications*, Report and Order, 30 FCC Rcd 8677, ¶ 3 (2015); 47 C.F.R. §

12.5. These rules require providers to offer new subscribers the option to purchase a backup solution that provides consumers with at least eight hours of standby power during a commercial power outage, which will enable calls to 911. In addition, effective February 13, 2019, providers must offer customers at least one option that provides a minimum of 24 hours of standby backup power.

VTel has been meeting and exceeding the FCC's backup power requirements since it began transitioning customers from copper to fiber in 2013: Specifically, while the FCC rules required providers to offer for sale at least one option with a minimum of eight hours of standby backup power (47 C.F.R. § 12.5(b)(1)), VTel installed battery backup units at each customer location as part of its network-wide fiber deployment, rather than simply offering the solution for sale. The batteries included in these units last an estimated 9.6 hours of runtime under nominal conditions. Although the Shrewsbury Selectboard claims that VTel's batteries "do not last for eight hours," the performance of any battery is affected by factors such as battery age, temperature, and load.

Furthermore, recognizing the potential for communications disruptions during extended power outages, the battery backup units VTel has been providing to customers since 2013 can accommodate three additional units, with each additional unit adding 20AH, (240 watts) or about 26.6 hours of additional run time. In short, VTel offers customers an option for total standby backup power runtime that exceeds 80 hours or more than three days.

Battery backup unit and battery specifications, instructions, and operating details are published on VTel's website at <https://www.vermontel.com/battery-info/>, and in the enclosed Battery Information document provided to all new customers at the point of sale. Additionally, existing customers are provided this battery backup information annually by VTel bill insert notices titled "Backup Power for Home Phone Services during Power Outages."

In sum, VTel has made it a priority to communicate to customers the benefits and limitations, including backup power requirements, of fiber-based service, which are fundamentally a function of the technology itself, and of course not specific to VTel's fiber network. With over 90% of Vermonters maintaining at least one landline, and more than 1/3 of local telephone service provided over coaxial cable, optical fiber, or wireless, according to the survey data in the draft 2018 Telecommunications Plan, the number of Vermont households dependent on backup power to maintain phone service during an outage exceeds those served by VTel's network (which the Plan estimates provides 5.4% of local telephone service) by several times. The "old days" of copper carrying electricity were wonderful, but copper DSL speed limits often fall below minimum target thresholds today set by the FCC and others, and many companies trying to survive within such technology and speed limits are gradually, across America, dying off.

As the Department notes in the Plan, "The best way to ensure the resiliency of voice service during a storm event is to ensure that the power stays on." (2018 Draft Plan p.55). VTel recognizes this requires a coordinated effort between telecommunications and electric utilities as the Plan notes. In the meantime, VTel will continue to meet and exceed the industry standards and regulatory requirements of making backup power available to its customers to minimize the services downtime when extended outages do occur.

Should you have any questions, please feel free to contact me.



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